

AGC/WSDOT Structures Team Minutes

January 27, 2006

Members in Attendance

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The meeting started at 9:00 AM with two invited guests in attendance: Nate Brown, the Bridge Office steel specialist, and Kevin Koester of the Apex Steel.

Steel Erector's AISC Certification Requirement

The first topic discussed was whether steel erectors on state projects would need to be AISC (American Institute of Steel Construction) certified to erect steel structures. Evidently this was being required in some east coast states and was as a result of some erection problems. The cost of this certification to a contractor is approximately \$5000 for the first year and \$3200 for the following two years. There after, the contractor would have to be recertified for the next two years for the \$5000 cost again.

One contract administration issue is that the AISC requires that the steel erector submit the steel erection plans and on most of our contracts the prime contractor submits the erection plan. The falsework constructor, usually the prime contractor, must also be certified. Some primes may not be able to get certified.

Currently there are only 3 AISC steel erectors in the State, and all of these certified erectors are steel fabricators.

The contractors thought that the AISC certification was unnecessary and didn't really buy anything with the certification. They thought the better way to go was to put the requirements that the State was comfortable with in the Standard Specifications and not require the certification. But if the state required the certification, the steel erectors would get the certification and pass the cost through to the owner.

Another suggestion was that the State require prequalification for the steel erectors similar to the drilled shaft subcontractors.

The AISC certification process takes approximately 4-6 months. The Contractors suggested that, if the State decided to require the certification, to provide advance notice to the Contractors and not place it in the Special Provisions.

Action Item: This issue will be further deliberated by the State. AGC members will be informed of any changes to the certification requirements.

General Comments and Business

Pete Welch of Wilder Construction, a new committee member, was introduced and welcomed. He has been involved with a lot of underground construction (water mains, sewers) and has been in the construction industry for over 20 years. Pete has been with the Wilder Construction for past 8 years.

The minutes for the November meeting were approved with minor revisions.

There was a brief recap of the AGC Annual meeting held the first week of January in Tacoma. No new suggestions for changes to the format were proposed.

Recent cost escalation trends in materials were briefly discussed. The steel costs seem to have stabilized. Contractors are seeing some surcharges on steel that vary because of the fluctuation in prices due to demand.

Purple reinforcing steel coating instead of the green epoxy coating is being used in California in salt water environments; it is a tougher product that resists holidays caused by shipping and installation. Currently the only supplier that makes this product is Fletcher Coatings in the San Francisco bay area. The cost of this material is higher than the green bar.

The State is considering installing epoxy reinforcing steel in both mats of bridge decks instead of just in the top mats. This will help protect the steel from corrosion and improve the longevity of decks. The pre-stressed girders will also require epoxy coated stirrups.

The State is also considering using another product called MMFX reinforcing steel in the future. This type of steel is supposed to be more resistant to corrosion.

Action Item: Jugesh will inform the team if use of MMFX reinforcing steel will be acceptable in future contracts

Pile Driving Vibration Monitoring

Pile driving discussion is deferred to the next meeting because of Jim Schettler's absence.

Action Item: This topic is deferred to the next meeting

Work Access-Special Provisions Review

Work access for bridge construction is being inconsistently written into the State contracts at this time. Bob mentioned that the permits incorporated into the contracts are placed in the Appendices. The permits are usually issued to the WSDOT, indicating the "owner" shall abide by the regulations. The question arises as to what the Contractor's responsibilities regarding permitting regulations are. Another point discussed was the method of payment for adhering to the stated requirement. When the permitting requirements are incorporated into the Specials, the payment method will also be addressed.

The Contractors need to know the permitting requirement for the temporary bridge access such as:

- Pile sizes and maximum numbers allowed
- Minimum height or clearance under the bridge
- Drawing showing the geometry permit was acquired for

Action Item: Mo will work with Bridge Office to incorporate the permitting requirements in the Specials and plans

Roughening Sides of Core Drilled Holes

There was a discussion about the BSP requirement of roughening the sides of core holes. Virgil researched this issue, and based on Hilti's technical support line feedback, some of the products worked with un-roughened cored holes and some of their products didn't work with smooth cored hole walls. However, all of their resins are suitable with roughened cored holes. It depended on the product that was being used as to whether the hole had to be roughened or not to meet the strength that the supplier specified with the stated safety factors.

Action Item: No changes to the current GSP requiring roughening the cored side walls seem warranted at this time

Truss Bridge Constructability

Nate Brown discussed a future construction project over the Nooksack River where a truss would be built and no temporary supports could be placed in the river. The idea the

bridge office had was to put in a back stay and cantilever the truss out to the center of the river and build the truss piece by piece. This was a concept that was used about a hundred years ago. Most Contractors thought this was a workable method of construction however it was slow work and fairly expensive, but the structure could be built without impacting the river. One possible erection scheme with specified loads should be shown in plans allowing for the contractor to choose other methods of erection.

Action item: No action needed

Noise Wall and Sign Bridge Shaft Contractor's Pre-qualifications

Mo opened the discussion with WSDOT's recent concerns regarding unsuccessful construction of noise wall shafts due to inappropriate and undersized equipment. Shafts constructed for noise walls, sign bridge foundations, and signal bases need to be drilled by contractors with the same pre-qualifications as for bridge shafts. Some contractors suggested having a bid item for the shafts to make this process easier for them. The contractors indicated that in some cases it may not be necessary to have a shaft contractor drill all of the foundations. The contractors would like to keep the number of subcontractors on a job to a minimum if possible.

Action Item: WSDOT will continue this discussion internally and keep the roadway and structures team informed

Standard Specification section 2-09

This agenda item is deferred until next month's meeting because of a lack of time available at this meeting.

Action Item: This topic will be on the Feb. agenda

Forming the Deck on the Top of Steel Plate Girders

Nate Brown handed out the latest plate girder bridge deck details. The detail allows for a 3" flat soffit next to the top flange accommodating form hangers. However, based on feedback from the Bridge Preservation, this portion of the deck needs to be reinforced. Nate suggested a #3 bar wrapped by 12 gage wires. The team recommended a #4 bar wrapped with epoxy coated wire.

Action Item: Nate will update the details based on the team's recommendations

Cold Weather Concrete Curing Technology

Mo handed out an article that discussed using heating blankets for cold weather curing. These were electric blankets that could be used to keep deck concrete within curing temperatures. Charlie said he had used them on the east coast, and they were common and could be rented for a couple of week for a deck placement. He wasn't aware of anyone in the west that used these. Tobin had looked into purchasing the blankets but they were cost prohibitive.

The meeting adjourned at 12 noon, the next meeting is scheduled for February 24th.